



Lisa M. Holliday, Ph.D.
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<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 loss and --</p> <p>2 A Oh, no, no, no. There's one template for all</p> <p>3 reports.</p> <p>4 Q Okay. So when you're writing -- so when</p> <p>5 you're writing these reports, the template comes in,</p> <p>6 and it's got some pre-generated paragraphs. Correct?</p> <p>7 A Correct.</p> <p>8 Q And none of these are type of loss specific?</p> <p>9 A They are not.</p> <p>10 Q So all of the specific causes of loss, all of</p> <p>11 that language should be completely different?</p> <p>12 A It comes in blank.</p> <p>13 Q Okay. And so you've never copied and pasted</p> <p>14 cause of loss specific information into your</p> <p>15 paragraphs?</p> <p>16 A I copy -- yes, I do. I don't start from</p> <p>17 scratch. I decide what I want to write, and if I've</p> <p>18 written that before, I might copy and paste.</p> <p>19 Q Okay.</p> <p>20 A But it is each -- each report is my original</p> <p>21 thought.</p> <p>22 Q Okay. But you'll look at previous ones and</p> <p>23 say --</p> <p>24 A Yes. Yeah.</p> <p>25 Q -- that worked for us --</p>	<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 Rimkus?</p> <p>2 A I did do some forensic work on the school</p> <p>3 buildings in Moore.</p> <p>4 Q Was that prior to Rimkus?</p> <p>5 A Prior to Rimkus.</p> <p>6 Q Do you know who the plaintiff's attorney is</p> <p>7 in that case?</p> <p>8 A Yes. I worked for the plaintiff's attorney.</p> <p>9 Q Other than your work with that, have you done</p> <p>10 anything along those lines?</p> <p>11 A No. Just volunteer work after disasters.</p> <p>12 Q And is that determining cause of loss?</p> <p>13 A Determining cause of failure. We'll call it</p> <p>14 cause of failure.</p> <p>15 Q Okay. And is all this relative to the 2013</p> <p>16 tornado?</p> <p>17 A The 2013, yes. I did work on the 2013</p> <p>18 tornado with the National Science Foundation.</p> <p>19 Q What was the -- what was the type of lawsuit</p> <p>20 that was involved in the one you were the expert for</p> <p>21 the plaintiff?</p> <p>22 A It was the collapse of the school buildings</p> <p>23 that killed the children.</p> <p>24 Q What was your conclusion?</p> <p>25 MR. FELTY: Counsel, before we go there, it's</p>
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<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 A As a guide.</p> <p>2 Q -- last time --</p> <p>3 A As a guide, as a writing guide.</p> <p>4 MR. FELTY: Make sure he finishes his</p> <p>5 question.</p> <p>6 THE WITNESS: Okay. Sorry.</p> <p>7 Q (By Mr. Engel) But you'll look at previous</p> <p>8 ones and you'll say, that worked for us last time, let</p> <p>9 me copy and paste into this one these paragraphs?</p> <p>10 MR. FELTY: Object to form.</p> <p>11 Q (By Mr. Engel) Correct?</p> <p>12 A Yes. As a starting point.</p> <p>13 Q This is something that I -- again, I have to</p> <p>14 go backwards. I'm sorry for being out of order here.</p> <p>15 But prior to your part-time work with Rimkus, did you</p> <p>16 do any -- did you do any forensic, you know,</p> <p>17 client-based report writing like you do now?</p> <p>18 A No. Some inspections. I take that back. I</p> <p>19 have done some inspections, residential inspections.</p> <p>20 Q Were you doing that for the sale and purchase</p> <p>21 of residential real estate?</p> <p>22 A Yes.</p> <p>23 Q Okay. So other than the home inspections</p> <p>24 type work, have you done any forensic engineering</p> <p>25 reports for clients prior to your part-time work at</p>	<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 not clear to me whether Dr. Holliday --</p> <p>2 MR. ENGEL: If she was consulting?</p> <p>3 MR. FELTY: -- was a testifying or consulting</p> <p>4 expert. Because we're not clear as to that point, we</p> <p>5 move for protective order. The Oklahoma Discovery Code</p> <p>6 is pretty clear about, you know, consulting expert</p> <p>7 opinions are not discoverable.</p> <p>8 If it turns out that she was designated as a</p> <p>9 testifying expert, we would be willing to stipulate</p> <p>10 that you could reopen her deposition to ask about that</p> <p>11 point if we really felt it was necessary. But until we</p> <p>12 reach a conclusion on that issue, I'd move for a</p> <p>13 protective order and request that we address a</p> <p>14 different topic.</p> <p>15 Q (By Mr. Engel) You're very fortunate.</p> <p>16 Rimkus hires very good quality attorneys for you all.</p> <p>17 He's correct.</p> <p>18 What was the name of the plaintiff's attorney</p> <p>19 again?</p> <p>20 A There was quite a few plaintiff's attorneys.</p> <p>21 Q Okay. What's the most inspections you've had</p> <p>22 in a week? More than ten?</p> <p>23 A No.</p> <p>24 Q Now that you're full-time, how many are you</p> <p>25 doing?</p>

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<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 A Four, three.</p> <p>2 Q Do you do the crawlspace inspections?</p> <p>3 A Yes.</p> <p>4 Q Do you wear the disposable suits?</p> <p>5 A Yes. I have them in extra small.</p> <p>6 Q Prior to your work at Rimkus, did you do a</p> <p>7 lot of commercial roofing work? Did you ever work for</p> <p>8 a roofer? Did you ever do --</p> <p>9 A Just the structural.</p> <p>10 Q Okay. And that's design. Correct?</p> <p>11 A Design.</p> <p>12 Q Okay. Did you ever do -- well, now that</p> <p>13 you're working for Rimkus, you've been on more</p> <p>14 commercial roofs. Correct?</p> <p>15 A Correct.</p> <p>16 Q What about residential roofs? Prior to</p> <p>17 working at Rimkus, did you -- were you on a bunch of</p> <p>18 residential roofs?</p> <p>19 A Just as an engineer, yes. Just as doing</p> <p>20 inspections, inspecting roofs.</p> <p>21 Q I'm sorry. I'm not sure I'm clear on that.</p> <p>22 So prior to working at Rimkus, did you do a bunch of</p> <p>23 residential roof inspections?</p> <p>24 A Not -- I would not say a lot.</p> <p>25 Q Okay. Just a few?</p>	<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 A I don't love heights.</p> <p>2 Q What's the threshold there? Is it over a</p> <p>3 residential height, are you afraid to get on it, or is</p> <p>4 it -- like, if it's four stories, are you -- I'm just</p> <p>5 trying to get a feel for that.</p> <p>6 A I don't like bridges.</p> <p>7 Q Was this your first engineering report?</p> <p>8 A Yes. Well --</p> <p>9 Q You said it was your first inspection. But</p> <p>10 is it the first report?</p> <p>11 A My first report with Rimkus, I believe.</p> <p>12 Q Did Mr. Frase make changes to your report?</p> <p>13 A No, he did not.</p> <p>14 Q He didn't touch it at all?</p> <p>15 A I'm not sure he ever saw it.</p> <p>16 Q So you did send it to him, but then you went</p> <p>17 ahead and submit it to your --</p> <p>18 A Oh, I'm sorry. I'm sorry. Mr. Frase? I'm</p> <p>19 sorry. I thought you said Tim. Can you repeat your</p> <p>20 question? I misunderstood.</p> <p>21 Q Yes. Did Mr. Frase make any changes to your</p> <p>22 report in this instance?</p> <p>23 A Editorial changes, yes.</p> <p>24 Q Do you know what those were?</p> <p>25 A I don't remember. A lot of changing present</p>
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<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 A Just a few.</p> <p>2 Q Okay. And then -- but prior to working at</p> <p>3 Rimkus, you didn't have any commercial roof experience?</p> <p>4 MR. FELTY: Object to form.</p> <p>5 THE WITNESS: Design experience.</p> <p>6 Q (By Mr. Engel) Only design experience?</p> <p>7 A Correct.</p> <p>8 Q Okay.</p> <p>9 A Design in construction.</p> <p>10 Q How many asphalt roofs would you say you</p> <p>11 inspected prior to working at Rimkus?</p> <p>12 MR. FELTY: Object to form. Counsel, we're</p> <p>13 on a -- this case involves a residential roof. I'm not</p> <p>14 quite sure what the relevance is.</p> <p>15 THE WITNESS: Asphalt roofs? Repeat your</p> <p>16 question again. I'm not sure what you're asking.</p> <p>17 Q (By Mr. Engel) Prior to working at Rimkus,</p> <p>18 how many asphalt roofs had you been on?</p> <p>19 MR. FELTY: Object to form.</p> <p>20 THE WITNESS: How many asphalt roofs had I</p> <p>21 been in on my life?</p> <p>22 Q (By Mr. Engel) Well, I mean as an engineer</p> <p>23 up there doing work.</p> <p>24 A Yeah. Over the years, I don't know.</p> <p>25 Q Are you afraid of heights?</p>	<p>LISA M. HOLLIDAY, Ph.D. - APRIL 13, 2018</p> <p>1 tense to past tense and speaking in plural rather than</p> <p>2 singular.</p> <p>3 Q Other than grammar, did he make any</p> <p>4 adjustments to your report?</p> <p>5 A Just editorial changes. Nothing engineering.</p> <p>6 Q Was this claim originally assigned to Tim</p> <p>7 France?</p> <p>8 A It was.</p> <p>9 Q Was Tim France with you at the time of the</p> <p>10 inspection?</p> <p>11 A He was.</p> <p>12 Q Do you know how many other houses in Cushing</p> <p>13 he was looking at at the time?</p> <p>14 A I don't.</p> <p>15 Q Have you ever had a claim on your personal</p> <p>16 residence?</p> <p>17 A Not on my personal residence.</p> <p>18 Q Have you ever helped a friend with their</p> <p>19 insurance claim?</p> <p>20 A I have not. Just to be clear, I did have a</p> <p>21 claim on a rental property.</p> <p>22 Q Hail?</p> <p>23 A No.</p> <p>24 Q Fire?</p> <p>25 A No.</p>

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1 said that I -- yeah. I was very confused by that
2 question.

3 Q (By Mr. Engel) I can rephrase. I'm sorry,
4 ma'am.

5 A Okay.

6 Q Have you ever found that -- you said you've
7 done less than a dozen earthquake inspections.
8 Correct?

9 A With Rimkus. I've seen earthquake damage all
10 over the world for tens of years now.

11 Q But as far as your forensic Rimkus work, have
12 you ever concluded that a home was structurally
13 compromised by an earthquake?

14 A I haven't seen one yet.

15 Q Okay. Have you ever concluded that a home
16 was damaged by an earthquake?

17 A Is that not the same question you just asked?

18 Q No, ma'am. I said structurally compromised
19 the first time.

20 A Oh, structurally compromised.

21 Q Yes, ma'am.

22 A And the second time was --

23 Q Damaged at all.

24 A Damaged. I have not personally seen it, but
25 I haven't been with Rimkus very long.

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1 Q Just --

2 A And we haven't --

3 Q -- a dozen earthquake inspections?

4 A Yeah.

5 Q And of those dozens, you've never seen
6 earthquake damage?

7 MR. ANDREWS: Object to the form.

8 THE WITNESS: Correct.

9 Q (By Mr. Engel) Okay. If you did see -- and
10 so now I want to go into this hypothetical. If you did
11 see earthquake damage to a home and you did say, well,
12 this is certainly earthquake --

13 A And I have seen earthquake damage to homes in
14 Oklahoma.

15 Q But not as a Rimkus engineer?

16 A But not as a Rimkus engineer.

17 Q If you had seen -- if you concluded that it
18 was, in fact, earthquake damage, and you saw the doors
19 were no longer opening and closing, would you conclude
20 that that was caused by the earthquake?

21 MR. FELTY: Object to the form.

22 MR. ANDREWS: Object to the form.

23 MR. FELTY: Incomplete hypothetical.

24 THE WITNESS: Yeah. I would have to see if
25 those two things are related or not structurally.

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1 Q (By Mr. Engel) Where did you see earthquake
2 damage to a residential structure in Oklahoma?

3 MR. ANDREWS: Object to the form, to the
4 extent that it would -- if the question seeks people's
5 personal information, we would object and instruct the
6 witness not to answer as to that. But if the witness
7 can confine her answer in such a way that doesn't
8 reveal anybody's personal information, then she's free
9 to answer.

10 THE WITNESS: As I stated before, in Prague.

11 Q (By Mr. Engel) Okay. What's the size of
12 that earthquake?

13 A It was -- I don't remember. It was
14 getting -- it was bigger than a 5, less than a 6,
15 somewhere in between there.

16 Q Is that a -- were those single-story
17 residences?

18 A Yes. Brittle -- the brittle pieces were
19 damaged. And there was also some unreinforced masonry
20 commercial properties that were damaged.

21 Q Other than that earthquake, you haven't seen
22 any residential damage -- or let me strike that.

23 Other than the effects of that earthquake in
24 2010, you haven't seen any other earthquake damage in
25 Oklahoma?

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1 MR. FELTY: Object to the form.

2 THE WITNESS: At -- myself personally, no.
3 I've seen reports. I've seen -- been to conferences.
4 I've seen other people's work that saw damages. But I
5 have not personally inspected that kind of damage yet.

6 Q (By Mr. Engel) What's the largest earthquake
7 other than Prague that you've investigated? Do you
8 think it was this one?

9 MR. FELTY: Object to the form.

10 MR. ANDREWS: Yeah. Same objection.

11 THE WITNESS: So it depends on what you mean
12 by investigated. Studied, been a witness to --

13 Q (By Mr. Engel) As a Rimkus engineer hired to
14 investigate and write a report for.

15 A What's the -- okay. So as a Rimkus engineer.
16 So since August, what is the largest size earthquake --
17 I don't know. I'm going to guess it's between a 5 and
18 a 6 because that's all that there's been in --

19 MR. FELTY: Don't guess if you don't know the
20 answer.

21 THE WITNESS: I don't know the answer. I do
22 not know the answer.

23 Q (By Mr. Engel) Where in that range is it --
24 is there damage to structural -- to homes --

25 MR. FELTY: Object to the form.

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1 A Generally, not the best.

2 Q Is that type of silty -- or silty clay common

3 in Oklahoma?

4 A Let's just say that if expansive soils become

5 a commodity, Oklahoma is set.

6 Q So a lot of the land in Oklahoma is going to

7 fit this silty clay expansive soil. Right?

8 A Correct.

9 Q Like, if we just pulled up a map of Oklahoma

10 City and you put your finger down maybe in Heritage

11 Hills, you would run into stuff like that?

12 A I happen to know that I have it in Heritage

13 Hills.

14 Q Okay. So underneath your house is going to

15 be this silty clay soil. Is that correct?

16 A I've seen it.

17 Q Okay. And you described this as unfavorable

18 to build on. Is that correct?

19 A Correct. It has a high plasticity index.

20 Q And, again, you're looking at this plasticity

21 index where it says 25 to 44?

22 A Uh-huh.

23 Q What does that index measure?

24 A So plasticity index is a measure of how much

25 the soil expands and contracts with moisture, and

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1 anything over 15 is considered expansive.

2 Q And is that site-specific?

3 A No.

4 Q So if anything, is this type of clay --

5 they're all going to have plasticities of that?

6 A Right. That's the definition of a clay.

7 Q Would you --

8 A Expansive clay soil.

9 Q So it's important just knowing exactly what

10 type of clay you have, and then you get this plasticity

11 range. Correct?

12 A The plasticity range defines the soil --

13 Q Okay.

14 A -- the expansiveness of the soil.

15 Q So if you were to test the soil, are you

16 looking for plasticity range, and that determines the

17 soil, or is it reversed?

18 A So, generally speaking, clays expand and

19 contract, and the way that we measure how expansive or

20 contracting a clay is by its plasticity index. So if

21 you want to think of it as -- in layman's terms, how

22 sticky is the clay. A higher plasticity index would be

23 stickier, and a lower plasticity index would be

24 something closer to sand that's not sticky at all,

25 sticky being a nontechnical term.

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1 Q Sure. And when you're looking at these USDA

2 maps, is it your understanding that these maps have

3 disclaimers stating that they're no substitute for

4 site-specific tests?

5 A I believe they do have statements like that.

6 Q And that's because the soil can vary from

7 site to site, even though the overall area has one type

8 of soil. Correct?

9 A Correct.

10 Q And that's not uncommon anywhere in the

11 world. Right?

12 A Correct.

13 Q And so your understanding is that -- you

14 deemed this soil to be this silty clay with this

15 plasticity based on the USDA map, but not based on a

16 test that you did determining the type of soil?

17 A Correct.

18 Q And because the USDA cites that these are

19 just kind of generalizations, without a soil test, we

20 don't know exactly what type of soil is under that

21 house, do we?

22 A Correct.

23 Q Did you all discuss doing a soil --

24 A We did not.

25 Q -- sample? Is that something that you have

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1 ever done?

2 A It's generally not done on residential.

3 Q But on commercial claims you do?

4 A No. On residential construction. In

5 general, for residential construction, it's not the

6 norm.

7 Q What about in Rimkus investigations? Have

8 you ever tested the soil?

9 A I have not.

10 Q Do you know if Rimkus would allow you to test

11 the soil if you requested it?

12 A I -- I don't see why not, if it was

13 necessary.

14 Q Do you know if -- is that a tool that you

15 consider in your tool belt if you deem it necessary, is

16 to test the soil?

17 A I don't think it's out of the realm of

18 possibility, yeah, if it's -- if it's warranted.

19 Q Okay. No one's ever told you, don't ever

20 test the soil?

21 A Right. No one's ever told me that.

22 Q Okay. And going forward -- well, if a home

23 is sitting on soil that's likely to shift naturally,

24 does that make it more likely to shift as a result of

25 an earthquake?

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1 Q And, of course, it was your first time
2 writing a Rimkus --
3 A Right.
4 Q -- report. So was Tim giving you a little
5 bit of guidance as to what you were going to be, you
6 know, looking for and putting in that report?
7 A No. Steve Frase did.
8 Q Okay. And so was there on-site -- you know,
9 did Tim France go, you know what, get the Ziplevel and
10 check all the -- all the elevations? Did --
11 A No. We did that together.
12 Q Okay. But the actual procedure that you all
13 went through, was that guided by Tim -- I'm sorry --
14 Mr. France?
15 A Yes.
16 Q Okay. That's because he's been an engineer
17 for Rimkus for a while. Correct?
18 A Correct.
19 Q And so, of course, you're -- you know, you
20 have a lot of earthquake design experience, so you're
21 coming in for the first time and he's kind of leading
22 you through this?
23 A The Rimkus way.
24 Q Okay. Let's talk about moisture in the soil.
25 Did you -- did you consult any rainfall maps when you

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1 were looking or making your conclusions?
2 A No.
3 Q Did you consult any flooding maps?
4 A No.
5 Q Did you -- you didn't test the soil, though,
6 either, did you?
7 A Correct.
8 Q So you didn't use any type of device that
9 would measure moisture in the soil?
10 A Correct.
11 Q Do you know how much moisture is in that
12 soil?
13 A No. And I'm sure it varies.
14 Q But we don't know how much because it hasn't
15 been tested.
16 A Well, it rains and doesn't rain.
17 Q But we don't know how much rain because you
18 didn't consult the maps. Right?
19 A I'm pretty sure it rained at some point in
20 the history of that house.
21 Q Did you consult any rainfall maps?
22 A No, no, no, no.
23 Q Typically, when you're investigating these
24 homes, do you measure moisture in the soil?
25 A No.

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1 Q Do you ever consult rainfall maps?
2 A I don't see why you would do that. I'm not
3 real sure where you're going with this.
4 Q Do you ever consult flood maps?
5 A Not for earthquake damage, no. I mean, a
6 flood map for maybe some other reason. But no. I've
7 never, except my personal experience, looked at flood
8 maps.
9 Q What about the idea of moisture in the soil?
10 What did you do to see if there was moisture in the
11 soil? Did you conduct any types of tests --
12 A No.
13 Q -- is what I'm trying to ask.
14 A No.
15 Q Do you have any handwritten notes from this
16 on your clipboard?
17 A I do not.
18 Q Did Mr. Frase send you any e-mails?
19 A I don't -- I don't believe so.
20 Q Underneath the home, are the support beams
21 two-by-four or two-by-sixes?
22 A I don't know. I didn't go under there.
23 Q Two-by-eights?
24 A I don't know.
25 Q Does anyone at Rimkus know the size of the

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1 floor joists underneath this home?
2 A Not that I'm aware of.
3 Q These conclusions that the home moved because
4 of differential foundation movement, is that the
5 conclusion of all of your earthquake investigations
6 with Rimkus thus far?
7 MR. ANDREWS: Object to the form.
8 MR. FELTY: Join.
9 THE WITNESS: I believe so. Yes.
10 Q (By Mr. Engel) And this idea that
11 differential foundation movement is caused by
12 construction defect, soil type, and moisture in the
13 soil, that's what led you to the conclusions in all of
14 those reports?
15 A No.
16 MR. ANDREWS: Object to the form.
17 Q (By Mr. Engel) Is there a variation where
18 you found something else caused all that?
19 A Not everybody had -- most -- construction
20 defects is not usual.
21 Q Okay.
22 A It's unusual.
23 Q So --
24 A But I'm -- let me just -- I'm open to the
25 idea that there is earthquake damage. I just don't